

# America's Dreadful Waste of Infant Life

## A Study of United States Mortality Rates Reveals That Community and Economic Conditions Are Chief Factors

By AARON HARDY ULM

IN ONE of the last addresses made to members of the medical profession, General Gorgas, the army surgeon who in his work at Panama showed how the tropics can be made healthful, scarcely mentioned medicine and sanitation. He talked tax reform. He made the assertion that the application of a certain radical change in imposing taxes would do more for general health than perhaps all research work regarding germs and antioxins that have been or will ever be made. The reform he said would relieve economic and social pressures that have more to do with producing bad health than do the specific diseases that cause ill health. In particular, he argued, the tax reform in question would have an effect that alone would add immensely to the health and average length of life of the people of the country.

What he said regarding the predisposing causes of ill health and shortened lives among all the people is perhaps many times more applicable to illness and mortality among infants. A study of infant mortality brings one to the inevitable conclusion that the numbers of infants that die in proportion to the numbers that are born are governed more by community factors and economic conditions than by the bacilli and bacteria that are the immediate causes of most of the diseases from which infants die.

"A baby that comes into the world has less chance to live one week than an old man of 90, and less chance to live a year than one of 80," says Bergeron. And that high risk of death is not in the case of babies due to inherent natural conditions as in the case of old men. Of course a certain percentage of babies are doomed to early death by inherent weaknesses, in part due to causes that perhaps cannot be overcome. But authorities hold that Nature strains every possible point to give every baby a fair chance to live. Some go so far as to assert that even the condition of the mother has little to do with the new-born baby's strength, that Nature will always sacrifice the mother on behalf of the infant. Hence those authorities maintain that babies of all classes, that is, of well nourished as well as poorly nourished mothers or leisure-laden as well as burden-laden mothers, are equally strong and vigorous at birth. But others assert that Nature cannot or does not go that far, and that, while Nature does her best, the condition and the environment of the mother have much to do with the infant's start in life.

Whatever the causes and the ultimate meaning of the high mortality among infants, it has been clearly demonstrated that, in this country and most other countries, it is much higher than it would be in a reasonably perfect order of society. In fact, students of the subject say that infant mortality in the United States is more than twice as great as it should be. That is to say, about 150,000 more babies die within the first year than should be the case.

Despite our habit of boasting of the superiority of our country over all others, statistics show that several other countries have lower infant mortality rates, which the authorities agree are the best available barometers of the true happiness, well-being and future outlook of a country and a people.

In New Zealand only fifty of every 1,000 children born die before they are a year old. In the birth and death registration area of this country the infant mortality rate is about double that of New Zealand. For the entire country it is probably higher. In 1910 it was estimated at 124, but undoubtedly there has been substantial reduction. Sweden, Norway, Ireland and Australia all have lower infant mortality rates than the United States, whose rate is much lower, however, than those of many other countries. Chile, if we omit heightened European rates caused by the war, leads with a rate of about 300. Russia has a rate of more than 200. In some parts of China and India the infant mortality rate is more than 500. Only one of every two children born ever see a birthday anniversary.

One cannot escape the impression that the infant mortality rates of different countries run somewhat parallel with the various countries' reputations for progress and the economic well-being, intelligence and character of their inhabitants. And if you examine the rates for various localities in the United States you will be impressed with a like comparison.

The infant mortality rate does not run evenly for all parts of the United States. In one notable city it

was only 41 for 1919. It is of some significance that the city in question—Brookline, Massachusetts—contains a population that ranks first in the country for average wealth. And Brookline is noted for its culture, too. Another city, El Paso, Texas, reports a rate of 245 for 1919. It is due perhaps to a large Mexican population. Burlington, Vermont, with a total population similar in size to that of Brookline and also of similar climate, reports a rate of 150. Many other cities, large and small, show rates exceeding 100. Minnesota has the lowest rate for any state.

Differences in infant mortality rates are due in only small part to variations in climate; in fact, it is questioned whether climate has any kind of direct influence on the matter.

There is wide disagreement as to the relative importance of the numerous "causes" that are believed to affect infant mortality. At best, the students of the subject know only what phenomena go hand in hand, as a rule, with high rates, and what phenomena are absent when there are low rates. That phenomena bear upon all the equations of living existence. The experts are coming more and more to believe that things which can be controlled only by community action have more to do with the situation than the things that can be controlled within the home.

"Infant mortality is the most sensitive index we possess of social welfare and efficient sanitary administration, especially under urban conditions," says Sir Arthur Newsholme, perhaps the greatest authority on the subject.

Surveys made by the United States Children's Bureau, under the direction of Miss Julia Lathrop, its director, show that infant mortality is even a more far-reaching "index" than indicated by the famous British expert.

Those surveys consisted of sending expert investigators into different cities, where first-hand inquiry was made with regard to the history of every child born in the city within twelve months. House to house canvasses of homes were made and mothers were examined not as to births and deaths of offspring but as to every environmental condition.

The statistics show, when analyzed, many surprising conditions. Among other facts they prove that infant mortality rates run almost parallel with the incomes of fathers. For Baltimore families, where the fathers earned less than \$550 a year—the figures are for 1915—the infant mortality rate was 288.6. For those where the fathers earned between \$550 and \$849 it was 178.3, decreasing with increase of income until the rate fell below 50 for infants born to mothers whose husbands earned \$2,000 or more a year. Baltimore is the largest city that has been surveyed, but like parallel—though the percentages vary—between the rate of infant deaths and family income was found in all. Investigations made in Germany and Great Britain show a similar parallel, the figures often being more extreme than those for America.

There was like parallel between the infant mortality rate and all those things which income usually reflects. In Johnstown, Pennsylvania, the rate for houses into which water was piped was 117.6; in houses that depended for water on wells and pumps it was 197.9. In streets where there were sewers the rate was higher than where there were none. In one city it was found that for babies born in homes that contained bath-tubs the mortality rate was only 72.6; for those born in

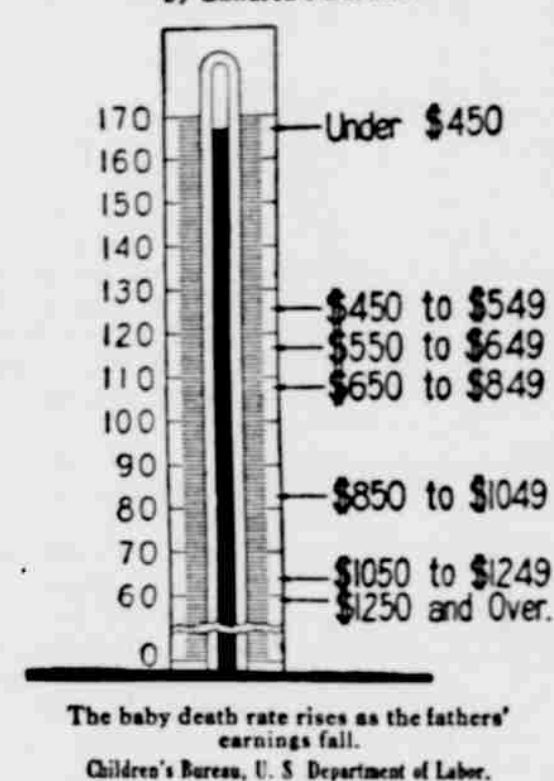
homes without bath-tubs it was more than double, or 197.9.

When the figures were arranged by different localities in cities, by wards usually, a clear divergence reflecting the character and tone of the sections of the same community was shown. In the slum sections it is always highest, in the select communities always the lowest.

Where mothers were wage earners before the births of the children, the infant mortality rate is always higher than for other women of the same class; when they work out after the babies are born the death rate is still higher.

Among foreign-born mothers it is invariably higher than among white natives; among foreign mothers who can't speak English it is higher still; among those who can't read and write a further increase is found. And there are like differences between death rates for infants born to literate and illiterate native mothers. There is wide difference of opinion as to the direct bearing of mere ignorance on the infant mortality rate.

INFANT MORTALITY RATES  
ACCORDING TO FATHERS' EARNINGS  
Combined figures from seven cities studied  
by Children's Bureau.



as it is for persons in higher social station."

The Children's Bureau surveys also show, incidentally, that the age of the mother and size of the family have much to do with the infant's chance of survival. The lowest rates are for mothers between 20 and 30 years old, and for the second child. Below twenty and after thirty years of age, the mother has greater risk of losing her baby in infancy, and after the second child the chances of the baby dying within one year after birth increase in proportion to the number of other children that precede it.

Housing, or rather crowding, is so clearly reflected in infant mortality that one expert ventures to say that he can approximate living conditions in a city with its infant mortality alone as data to work from. The rate rises and falls with the number of people per room living in dwellings where the little ones are born, and also in slight measure as the infant sleeps—in the same room with its parents or in an adjoining room.

Nobody can tell definitely how far government reflects itself in the infant mortality rates. Some say they are perhaps the best of indexes to the character of municipal government. For the water and milk supplies, municipal sanitation, in addition to housing laws, have immense effect on the health of babies.

"A high infant mortality rate today is a greater disgrace than a high typhoid rate," says Dr. William H. Davis, chief of the vital statistics division of the United States Census Bureau, "for a high typhoid rate may be due to one milkman's carelessness, or to the laxness of a few city officials in not properly safeguarding the water supply or the milk supply. But a high infant mortality rate reflects upon the clergy, the physicians and nurses, the school-teachers and editors . . . it reflects upon the intelligence of the people."

Yet Dr. Davis belongs to the group of experts that discount the direct effect of even poverty—the least disputed of all "causes"—on infant mortality.

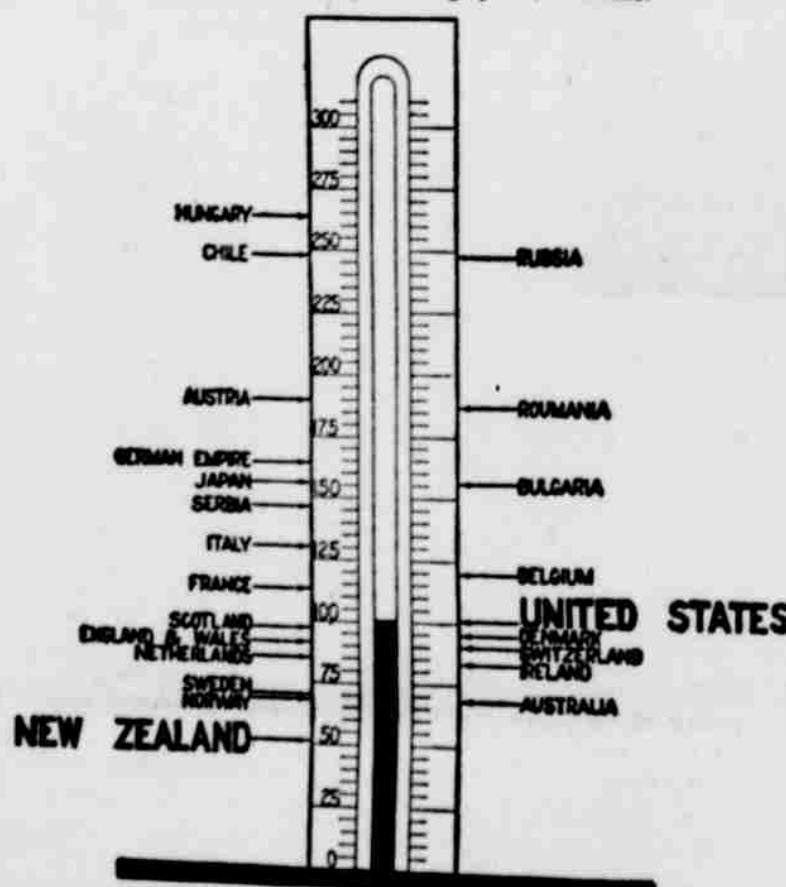
"Extreme poverty may be an important factor in some cases but in this country the problem is largely one of education," he says. He points out that the rate of infant mortality follows that for intestinal troubles.

All experts admit the high importance of mothers feeding their babies. Much artificial feeding, of course, is due to indifference, social interests and such; but an immense amount of it is due to the economic pressure which finds worst expression in the forcing of many mothers to be wage earners before the birth or during the infancy of the child.

From whatever point you view the subject, you must arrive at the conclusion that a high infant mortality rate reflects conditions that are disgraceful to communities; for it has been proven by experience that by community action high rates can be brought down, and largely by it alone. And it isn't very expensive to the community, taking just a little concerted scientific effort to see that every baby born within the com-

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INFANT MORTALITY THERMOMETER  
Deaths under one year of age per 1,000 births.



Within the first year after birth, the United States loses 1 in 10 of all babies born. It ranks eleventh among the principal countries of the world. New Zealand loses fewer babies than any other country. Rates are for latest available years up to 1916.  
Children's Bureau, U. S. Department of Labor.